NMCP COVID-19 Literature Report #17: Friday, 29 May 2020

Prepared By: Tracy Shields, MSIS, AHIP <tracy.c.shields2.civ@mail.mil>
Reference Medical Librarian; Naval Medical Center Portsmouth, Library Services

Disclaimer: I am not a medical professional. This document is current as of the date noted above. While I make every effort to find and summarize available data, things are changing rapidly, with new research and potentially conflicting literature published daily. Best practice and evidence are constantly shifting during this international public health crisis.

Reports are biweekly, planned for Tuesdays and Fridays.

Note: Due to the Memorial Day holiday, there was no report on Tuesday, 26 May.

Statistics

Global 5,851,494 confirmed cases and 361,270 deaths in 188 countries/regions

United States* top 5 states by cases (Virginia is ranked 14th)

	TOTAL	NY	NJ	IL	CA	MA
Confirmed Cases	1,725,656	366,733	157,815	115,833	103,936	94,895
Tested	15,646,041	1,876,789	685,857	829,966	1,790,559	562,323
Recovered	NA	64,954	25,804	NA	NA	NA
Deaths	101,706	29,529	11,409	5,186	3,993	6,640

^{*}see <u>census.gov</u> for current US Population data; NA: not all data available

Navy (Department of Defense)

	TOTAL	MIL	CIV	DEP	CTR
Cases	1,057	855	110	45	47
Hospitalized	7	1	4	0	2
Recovered	2,039	1,539	282	123	95
Deaths	12	1	8	0	3
Cumulative*	3,108	2,395	400	168	145

^{*}cumulative total = active + recovered + deaths

DOD dated Thursday, 28 May 2020

Virginia	Total	Chesapeake	Hampton	Newport News	Norfolk	Portsmouth	Suffolk	Virginia Beach
Cases	42.533	494	192	257	470	294	311	680
Hospitalized	4.529	86	30	39	67	43	49	92
Deaths	1,358	15	3	10	6	11	32	23

VA DOH as of 1200 EDT Friday, 29 May 2020

JHU CSSE as of 1200 EDT Friday, 29 May 2020

Summary: Dental Procedures

Guidance for Dental Settings During the COVID-19 Response

The CDC has a Clinician Outreach and Communication Activity (COCA) call scheduled for Wednesday, 03 June 2020 1400-1500 ET that will be of interest for this topic:

"During this COCA call, presenters will provide an overview of the updated guidance for dental settings, including recommendations for resuming non-emergency dental care during the COVID-19 pandemic. Presenters also will discuss strategies for dental healthcare facilities to optimize personal protective equipment (PPE)."

A recording and slides will be available for viewing a few hours after the live event ends. For more information, see: https://emergency.cdc.gov/coca/calls/2020/callinfo 060320.asp

COVID-19 and Dental

The pandemic has significantly affected dental health services (<u>Clin Oral Investig</u>) and caused anxiety among patients and practitioners (<u>Int J Environ Res Public Health</u> [fear]). There are real concerns about routes of transmission (<u>Int J Oral Sci</u>) and aerosolization of the virus during dental procedures (<u>J Zhejiang Univ Sci B</u>), leading to widespread recommendations (<u>Oral Dis [recs]</u>). The changes in dentistry because of the pandemic have led to calls for increases in teledentistry (<u>Int J Environ Res Public Health</u> [tele]) and ethics and moral discussions (<u>Br Dent J Imoral</u>]; J Am Dent Assoc [ethics]).

Numerous article discuss the direct effects of COVID-19 in dental practice (<u>J Dent Res</u>), infection control measures (<u>Oral Dis</u> [infect]), and risk mitigation (<u>Int J Environ Res Public Health</u> [risk]).

Two articles provide a fairly comprehensive review of the available literature on transmission and spread during dental procedures, discussion of concerns and impacts on the field, and other issues specific to dentistry with the COVID-19 pandemic (<u>Dental J; J Endod</u>).

At the time of this writing, there is no clear evidence of data on risk of transmission or infection when treating asymptomatic dental patients.

Previous Outbreaks

The 2002-2004 SARS outbreak may offer some guidance on how to continue dental education and safely provided specialist dental procedures; for examples of that literature, see: Br Dent J [pt2]; J Am Dent Assoc [SARS].

For a collection of citations on this topic, including the articles mentioned herein, see: https://www.ncbi.nlm.nih.gov/sites/myncbi/tracy.shields.1/collections/59683645/public/

Summaries from Other Sources

<u>CEBM</u>: What is the performance and impact of disposable and reusable respirators for healthcare workers in the context of COVID-19? (22 May 2020)

"This review looked at the performance of respirators (in terms of the protection they provide) and their impact (on wearers and clinical activities). We included disposable filtering facepiece respirator masks such as FFP3, N95 and P2 and reusable types such as elastomeric facepiece respirators and powered air-purifying respirators. We examined filtration standards for respirators and how they compare across different industries and 8 different international standards agencies. In a rapid systematic review, we summarised and assessed studies of different respirators' impact on clinical practice. The main findings were:

- 1. Standards for respirator performance are industry-agnostic, so repurposing a respirator from another industry to healthcare is appropriate provided it meets the required standard.
- 2. Safe use of respirators requires proper fit testing and adherence to good practice.
- 3. Even with fit testing, some clinical procedures including chest compression may compromise fit with some respirators.
- 4. Wearing a respirator seems to have minimal impact on short-term clinical procedures such as endotracheal intubation.
- 5. All respirator types place a substantial burden on the user, with trade-offs between protection, comfort and communication."

Note: This report has been submitted to an academic journal and the preprint is available online (medRxiv).

<u>ECRI</u>: Considerations for Safe Labor, Delivery, and Neonatal Care during the COVID-19 Pandemic (18 May 2020)

"During the COVID-19 pandemic, maximal protection of healthcare workers in obstetric and neonatal intensive care units (NICUs) and the mothers and newborns they care for are key aspects of specialized obstetric care, but limited outcomes data are available. Authors of a systematic review (SR) published in April 2020 that examined 385 published cases as of April 20, 2020, concluded that "COVID-19 infection during pregnancy probably has a clinical presentation and severity resembling that in non-pregnant adults and probably is not associated with poor maternal or perinatal outcomes." Limited data from this SR and additional individual retrospective case series suggest that the risk of mother-to-baby transmission in women with COVID-19 infection is very low. However, uncertainty about whether the virus crosses the placental barrier has led many obstetric departments to prohibit the practice of delayed umbilical cord clamping in term infants to minimize newborn exposure to any virus in the immediate environment. Guidance from multiple organizations describes ways to protect staff, measures to limit transmission,

recommendations for COVID-19 testing for pregnant women and for infants born to infected mothers, and optimal maternal care and breastfeeding recommendations. We also identified 13 articles that describe safe care strategies for patients or staff. Also, COVID-19 registries are collecting further data on maternal and neonatal outcomes."

Special Topic: Remdesivir

There have been several recent reports of remdesivir for COVID-19 (mainly published in the New England Journal of Medicine); they are gathered here for greater context.

Friday, 22 May: Remdesivir for the Treatment of Covid-19 — Preliminary Report (NEJM)

"We conducted a double-blind, randomized, placebo-controlled trial of intravenous remdesivir in adults hospitalized with Covid-19 with evidence of lower respiratory tract involvement. Patients were randomly assigned to receive either remdesivir (200 mg loading dose on day 1, followed by 100 mg daily for up to 9 additional days) or placebo for up to 10 days. The primary outcome was the time to recovery, defined by either discharge from the hospital or hospitalization for infection-control purposes only.... The data and safety monitoring board recommended early unblinding of the results on the basis of findings from an analysis that showed shortened time to recovery in the remdesivir group. Preliminary results from the 1059 patients (538 assigned to remdesivir and 521 to placebo) with data available after randomization indicated that those who received remdesivir had a median recovery time of 11 days (95% confidence interval [CI], 9 to 12), as compared with 15 days (95% CI, 13 to 19) in those who received placebo (rate ratio for recovery, 1.32; 95% CI, 1.12 to 1.55; P<0.001).... Remdesivir was superior to placebo in shortening the time to recovery in adults hospitalized with Covid-19 and evidence of lower respiratory tract infection."

Wednesday, 27 May: Remdesivir for 5 or 10 Days in Patients with Severe Covid-19 (NEJM)

"We conducted a randomized, open-label, phase 3 trial involving hospitalized patients with confirmed SARS-CoV-2 infection, oxygen saturation of 94% or less while they were breathing ambient air, and radiologic evidence of pneumonia. Patients were randomly assigned in a 1:1 ratio to receive intravenous remdesivir for either 5 days or 10 days. All patients received 200 mg of remdesivir on day 1 and 100 mg once daily on subsequent days. The primary end point was clinical status on day 14, assessed on a 7-point ordinal scale.... After adjustment for baseline clinical status, patients in the 10-day group had a distribution in clinical status at day 14 that was similar to that among patients in the 5-day group (P=0.14). The most common adverse events were nausea (9% of patients), worsening respiratory failure (8%), elevated alanine aminotransferase level (7%), and constipation (7%).... In patients with severe Covid-19 not requiring mechanical ventilation, our trial did not show a significant difference between a 5-day course and a 10-day course of remdesivir. With no placebo control, however, the magnitude of benefit cannot be determined."

Other recent articles on remdesivir include: compassionate use in severe COVID-19 (<u>NEJM</u>); early experience with it in SARS-CoV-2 pneumonia (<u>Infection</u>); a RCT out of China (<u>Lancet</u>); a review of its pharmacology and preclinical data (<u>Pharmacotherapy</u>); and an assessment of the drug's risk and benefit (<u>Drug Saf</u>).

Selected Primary Literature

Recent—published in peer-reviewed journals within the last 7 days of report's date

<u>JAMA</u>: Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy (28 May 2020)

"To our knowledge, this is the first report on mental health outcomes and associated risk factors among HCWs in Italy during the COVID-19 pandemic. These results are in line with previous reports from China, confirming a substantial proportion of mental health issues, particularly among young women and frontline HCWs. The main limitation is the impossibility of determining the sampling error or making inferences about populations because of the sampling technique. Our results warrant further monitoring and specific interventions for HCWs throughout the COVID-19 pandemic to prevent long-term mental health—related disabilities."

<u>Lancet</u>: Clinical impact of COVID-19 on patients with cancer (CCC19): a cohort study (28 May 2020)

"To our knowledge, we report the largest series of patients with cancer and COVID-19 to date, including over 900 patients with a broad geographical distribution. The population is diverse in terms of age distribution, race and ethnicity, cancer status, and whether they are on active anticancer treatment. We found significant associations with increased 30-day all-cause mortality and the general factors of increasing age, male sex, former smoking, number of comorbidities, and receipt of azithromycin plus hydroxychloroquine; and the cancer-specific factors of moderate or poor Eastern Cooperative Oncology Group performance status and active (measurable) cancer. However, we cannot formally ascertain if the combination of hydroxychloroquine and azithromycin gives any clinical benefit or overall harm to patients, given the non-randomised nature of the study, and the possibility of other potential clinical imbalances."

"We identified several cancer-specific factors that are associated with increased 30-day all-cause mortality in patients with cancer and COVID-19, in addition to previously reported factors of age and sex in the general population. These findings have implications for patients and health-care providers who will be confronted with difficult decisions during the SARS-CoV-2 pandemic, such as whether to withhold or continue anticancer treatments, and whether to accelerate end-of-life planning under some circumstances."

Environ Int: How can airborne transmission of COVID-19 indoors be minimised? (27 May 2020)

"During the rapid rise in COVID-19 illnesses and deaths globally, and notwithstanding recommended precautions, questions are voiced about routes of transmission for this pandemic disease. Inhaling small airborne droplets is probable as a third route of infection, in addition to more widely recognized transmission via larger respiratory droplets and direct contact with infected people or contaminated surfaces. While uncertainties remain regarding the relative contributions of the different transmission pathways, we argue that existing evidence is sufficiently strong to warrant engineering controls targeting airborne transmission as part of an overall strategy to limit infection risk indoors. Appropriate building engineering controls include sufficient and effective ventilation, possibly enhanced by particle filtration and air disinfection, avoiding air recirculation and avoiding overcrowding. Often, such measures can be easily implemented and without much cost, but if only they are recognised as significant in contributing to infection control goals. We believe that the use of engineering controls in public buildings, including hospitals, shops, offices, schools, kindergartens, libraries, restaurants, cruise ships, elevators, conference rooms or public transport, in parallel with effective application of other controls (including isolation and quarantine, social distancing and hand hygiene), would be an additional important measure globally to reduce the likelihood of transmission and thereby protect healthcare workers, patients and the general public."

<u>Infect Control Hosp Epidemiol</u>: Universal SARS-CoV-2 testing on admission to Labor and Delivery: Low prevalence among asymptomatic obstetric patients (27 May 2020)

In this retrospective study of obstetric admissions in 4 Boston-based hospitals, researchers found a 7.9% prevalence of the novel coronavirus among symptomatic obstetric patients and a 1.5% prevalence among asymptomatic patients.

<u>JAMA</u>: Association of Stay-at-Home Orders With COVID-19 Hospitalizations in 4 States (27 May 2020)

"In 4 states [Colorado, Minnesota, Ohio, and Virginia] with stay-at-home orders, cumulative hospitalizations for COVID-19 deviated from projected best-fit exponential growth rates after these orders became effective. The deviation started 2 to 4 days sooner than the median effective date of each state's order and may reflect the use of a median incubation period for symptom onset and time to hospitalization to establish this date. Other factors that potentially decreased the rate of virus spread and subsequent hospitalizations include school closures, social distancing guidelines, and general pandemic awareness. In addition, economic insecurity and loss of health insurance during the pandemic may have also decreased hospital utilization."

<u>NEJM</u>: Hospitalization and Mortality among Black Patients and White Patients with Covid-19 (27 May 2020)

"In this retrospective cohort study, we analyzed data from patients seen within an integrated-delivery health system (Ochsner Health) in Louisiana between March 1 and April 11, 2020, who tested positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2, the virus that causes Covid-19) on qualitative polymerase-chain-reaction assay. The Ochsner Health population is 31% black non-Hispanic and 65% white non-Hispanic. The primary outcomes were hospitalization and in-hospital death.

In a large cohort in Louisiana, 76.9% of the patients who were hospitalized with Covid-19 and 70.6% of those who died were black, whereas blacks comprise only 31% of the Ochsner Health population. Black race was not associated with higher in-hospital mortality than white race, after adjustment for differences in sociodemographic and clinical characteristics on admission."

Science: Reducing transmission of SARS-CoV-2 (27 May 2020)

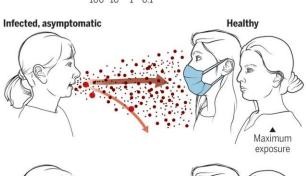
"Aerosol transmission of viruses must be acknowledged as a key factor leading to the spread of infectious respiratory diseases. Evidence suggests that SARS-CoV-2 is silently spreading in aerosols exhaled by highly contagious infected individuals with no symptoms. Owing to their smaller size, aerosols may lead to higher severity of COVID-19 because virus-

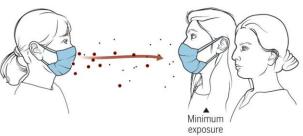
Particle size (µm)

containing aerosols penetrate more deeply into the lungs. It is essential that control measures be introduced to reduce aerosol transmission. A multidisciplinary approach is needed to address a wide range of factors that lead to the production and airborne transmission of respiratory viruses, including the minimum virus titer required to cause COVID-19; viral load emitted as a function of droplet size before, during, and after infection; viability of the virus indoors and outdoors; mechanisms of transmission; airborne concentrations; and spatial patterns. More studies of the filtering efficiency of different types of masks are also needed. COVID-19 has inspired research that is already leading to a better understanding of the importance of airborne transmission of respiratory disease."

Masks reduce airborne transmission

Infectious aerosol particles can be released during breathing and speaking by asymptomatic infected individuals. No masking maximizes exposure, whereas universal masking results in the least exposure.





GRAPHIC: V. ALTOUNIAN/SCIENCE

<u>BMJ</u>: Scope, quality, and inclusivity of clinical guidelines produced early in the covid-19 pandemic: rapid review (26 May 2020)

"What is already known on this topic

- Clinical guidelines produced in previous healthcare emergencies have fallen below gold standards of guideline development
- During the early coronavirus pandemic, a high degree of uncertainty existed about the optimal clinical management of patients with covid-19"

"What this study adds:

- Clinical guidelines written in the early covid-19 pandemic possessed methodological weaknesses, especially in the rigour of their development
- Recommendations for the management of vulnerable groups such as older people were also neglected
- Guidelines produced early in future pandemics should prioritise contingency, adaptability, and methodological rigour"

<u>Emerg Infect Dis</u>: Secondary Transmission of Coronavirus Disease from Presymptomatic Persons, China (26 May 2020)

"Our findings substantiate previous reports from China and Germany and show that SARS-CoV-2 can be transmitted during asymptomatic COVID-19 infection period. The probability of infection increased substantially among close contacts who shared living environments or had frequent contact with an index case-patient, which underlines the need for prompt contact-based surveillance and social distancing. Our results also showed most secondary infections occurred in confined familial clusters and that persons >60 years of age appear to be more vulnerable to being infected."

<u>Am J Emerg Med</u>: Features of COVID-19 post-infectious cytokine release syndrome in children presenting to the emergency department (23 May 2020)

"The 2019 coronavirus disease (COVID-19) has not appeared to affect children as severely as adults. However, approximately 1 month after the COVID-19 peak in New York City in April 2020, cases of children with prolonged fevers abruptly developing inflammatory shock-like states have been reported in Western Europe and the United States.

This case series describes four previously healthy children with COVID-19 infection confirmed by serologic antibody testing, but negative by nasopharyngeal RT-PCR swab, presenting to the Pediatric Emergency Department (PED) with prolonged fever (5 or more days) and abrupt onset of hemodynamic instability with elevated serologic inflammatory markers and cytokine levels (IL-6, IL-8 and TNF- α).

Emergency physicians must maintain a high clinical suspicion for this COVID-19 associated post-infectious cytokine release syndrome, with features that overlap with Kawasaki Disease (KD) and Toxic Shock Syndrome (TSS) in children with recent or current COVID-19 infection, as patients can decompensate quickly."

<u>Lancet</u>: Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis (22 May 2020)

"In the absence of reported randomised trials, there is an urgent need to evaluate real-world evidence related to outcomes with the use of hydroxychloroquine or chloroquine (used with or without macrolides) in COVID-19. Using an international, observational registry across six continents, we assessed 96 032 patients with COVID-19, of whom 14 888 were treated with hydroxychloroquine, chloroquine, or their combination with a macrolide. After controlling for age, sex, race or ethnicity, underlying comorbidities, and disease severity at baseline, the use of all four regimens was associated with an increased hazard for de-novo ventricular arrythmia and death in hospital. This study provides real-world evidence on the use of these therapeutic regimens by including a large number of patients from across the world. Thus, to our knowledge, these findings provide the most comprehensive evidence of the use of hydroxychloroquine and chloroquine (with or without a macrolide) for treatment of COVID-19."

"We found no evidence of benefit of hydroxychloroquine or chloroquine when used either alone or with a macrolide. Previous evidence was derived from either small anecdotal studies or inconclusive small randomised trials. Our study included a large number of patients across multiple geographic regions and provides the most robust real-world evidence to date on the usefulness of these treatment regimens. Although observational studies cannot fully account for unmeasured confounding factors, our findings suggest not only an absence of therapeutic benefit but also potential harm with the use of hydroxychloroquine or chloroquine drug regimens (with or without a macrolide) in hospitalised patients with COVID-19."

<u>Lancet</u>: Safety, tolerability, and immunogenicity of a recombinant adenovirus type-5 vectored COVID-19 vaccine: a dose-escalation, open-label, non-randomised, first-in-human trial (22 May 2020)

"The Ad5 vectored COVID-19 vaccine is tolerable and immunogenic at 28 days post-vaccination. Humoral responses against SARS-CoV-2 peaked at day 28 post-vaccination in healthy adults, and rapid specific T-cell responses were noted from day 14 post-vaccination. Our findings suggest that the Ad5 vectored COVID-19 vaccine warrants further investigation."

Preprints—not yet peer-reviewed papers

*bioRxiv and *medRxiv are preprint servers: "[T]hese are preliminary reports that have not been peer-reviewed. They should not be regarded as conclusive, guide clinical practice/health-related behavior, or be reported in news media as established information."

<u>medRxiv</u>: Susceptibility to and transmission of COVID-19 amongst children and adolescents compared with adults: a systematic review and meta-analysis (24 May 2020)

Per JHCHS COVID-19 26 May 2020: "Older adults are at elevated risk for severe COVID-19 disease and death compared to younger adults and children. The extent to which children contribute to transmission of the virus, however, remains uncertain. A study (preprint) published by researchers in the United Kingdom, the Netherlands, and Australia uses 18 previously published contact tracing and screening studies to evaluate the relative contribution of children and adults to SARS-CoV-2 transmission. The article reviews each of the included studies and an assessment of its relative contribution to the understanding of children's role in SARS-CoV-2 transmission.

Based on the included contact tracing studies, the researchers estimate that children (approximately age 18-20 years and younger) have a 56% lower odds of infection compared to adults. The population screening studies, however, "were more heterogenous and were not suitable for meta-analysis." Depending on the study, the results showed lower prevalence among children or prevalence similar to adults. The studies evaluated did not provide sufficient information to fully evaluate the role of children in infecting others, making it difficult to characterize their role in driving community transmission. This study provides "preliminary evidence" that children have lower susceptibility to SARS-CoV-2; however, further data and research are needed to better characterize the role of children in the COVID-19 pandemic."

<u>bioRxiv</u>: Convergent Antibody Responses to SARS-CoV-2 Infection in Convalescent Individuals (22 May 2020)

Per JHCHS COVID-19 27 May 2020: "Researchers at The Rockefeller University published data (preprint) from a study of 149 COVID-19 patients to evaluate the presence of antibodies in blood serum after their recovery. Their analysis identified a broad scope of immune response among the participants, including the production of various types of antibodies. The researchers found that the majority of the COVID-19 patients did not produce the appropriate type or quantity of antibodies necessary to result in the 'neutralizing activity' necessary to prevent SARS-CoV-2 infection, including 33% whose neutralizing activity was below the minimum detectable level. They did identify 'remarkably high' neutralizing activity in 2 of the participants. The researchers were further able to identify and clone key neutralizing antibodies from these 'elite responders' and they are working to translate them into a potential COVID-19 treatment."

PubMed: New Look, New Way Linking to Full Text, New Features (And New Headaches)

If you haven't looked at PubMed in a while, you may be in for a surprise. Last week, PubMed switched to its new default interface, which has new features, a different look, and changes how keyword searches are translated and presented.

The biggest difference most users will notice is the Best Match default sort, which is based on an evolving algorithm that attempts for work like Google Scholar's relevance sort. There are some growing pains with it though; until some of those issues are worked out, I would highly recommend changing the sort from Best Match to Most Recent. You can do this by clicking on the Display Options at the top right of the results page.

Use this link for new PubMed to see NMCP Library Services' "check for full text access" buttons: https://pubmed.ncbi.nlm.nih.gov/?otool=vanmcplib

If you aren't quite ready to make the switch, legacy (aka 'old') PubMed is still available at https://pmlegacy.ncbi.nlm.nih.gov/pubmed, but it won't be around for long.

Library Services offers training classes for individuals, groups, and departments in using PubMed and other information sources. Contact us for help: usn.hampton-roads.navhospporsva.list.nmcp-library@mail.mil

CDC Webinar

TOPIC: COVID-19 Response: Promising Practices in Health Equity

WHEN: Tuesday, 02 June 2020, at 1500-1600 ET

DETAILS: "Please join us for a webinar focused on sharing promising public health

practices to reduce COVID-19 related disparities. During this webinar, presenters will discuss the actions their cities have taken to mitigate the disproportionate impact on racial and ethnic minorities. Additionally, speakers will take these ideas a step further and examine how they can be integrated into longer-term strategies for lasting impact that strengthens future responses and advances health equity. Please feel free to share this announcement with others who

might be interested."

Submit questions in advance to eocevent357@cdc.gov (Subject Line: Webinar:

COVID-19 Response: Promising Practices in Health Equity).

REGISTER: https://www.zoomgov.com/webinar/register/WN PI52MF PSIiWhuZCK78B Q

In Brief

An incalculable loss: America has reached a grim milestone in the coronavirus outbreak (NYT).

For a different way to visualize the loss, see this infographic (BuzzFeed).

Coronavirus Impact

The pandemic may help the military fight the next war (Defense One).

New research is rewriting what we know about when and where COVID-19 hit the US and uncovering the lost opportunities to stop its spread (<u>STAT</u>).

In rare instances, SARS-CoV-2 incubation period might last a lot longer than previously thought; there are reports of cases traced back to infection sources from months earlier (<u>AusNews</u>).

Seasonal influenza rates have fallen sharply, a trend that is attributed to the isolation and social-distancing measures for COVID-19 (Nature).

Getting Back to 'Normal'

'Tactically dispersed' is the new 'social distancing' (NPR)—which is still necessary since herd immunity is still a ways off (NYT).

Contact tracing will be critical moving forward, but "for it to succeed in the United States, experts are cautioning that it's going to take more people, more money, and more cooperation than the country has in place" (STAT).

South Carolina's actions on contact tracing, testing, and coordinating across the state in rural and urban areas is a model for other states in fighting the coronavirus (<u>Conversation</u>).

There's a good chance the virus itself may never go away, even if there's an effective vaccine (WashPo).

Even if there is a vaccine, it will not help if people don't get it. In a recent poll of Americans, 49% who responded said they plan to get a COVID vaccine when available, 31% they were unsure they will be vaccinated, and 20% said they would not get a vaccine. Disparities emerged as well—56% of whites, 25% of blacks, and 37% of Hispanics said they would get the vaccine if available (NPR).

What folks really need is some practical guidance on harm reduction as things reopen (Atlantic).

Mental Health, Wellness, & Resilience

The US needs to change how it deals with mental illness, and the pandemic offers an opportunity to make dramatic changes for the better (<u>STAT</u>).

Self-care and eating well are important components of mental health. With a lot of people isolating at home or staying in and cooking, some are rising to the challenge of solo cooking (<u>WashPo</u>). (Ed: To be fair, there is nothing wrong about having cereal for dinner.)

Ripple Effects

According to a new survey, 48% of respondents have skipped or postponed medical care in the last 3 months because of the coronavirus outbreak, and 11% of those said their condition got worse as a result (KHN).

"Child hunger is soaring, but two months after Congress approved billions to replace school meals, only 15 percent of eligible children had received benefits" (NYT).

For more on information on ripple effects, see NMCP COVID-19 report #9 (<u>SharePoint</u>) summary on food insecurity and report #13 (<u>SharePoint</u>) summary on health disparities.

Mis- and Disinformation

"As its global image takes a big hit, the Chinese Communist Party is using an arsenal of spin, obfuscation, hyperbole, and outright disinformation to win back its reputation" (Atlantic).

China has also accused the US of spreading conspiracies (BBC).

There are calls for researchers to step up and respond to misinformation in an honest and transparent way on the coronavirus (<u>Nature</u>).

There are real direct and indirect harms from rumors and mis/disinformation about COVID-19 (BBC).

Long read: "The epic battle against coronavirus misinformation and conspiracy theories" (Nature).

References

Statistics

DOD: Department of Defense, Navy. US Navy COVID-19 updates (accessed 28 April 2020). Link: https://navylive.dodlive.mil/2020/03/15/u-s-navy-covid-19-updates/

JHU CSSE: Johns Hopkins Center for Systems Science and Engineering. Coronavirus COVID-19 Global Cases. Link: https://coronavirus.jhu.edu/map.html

VA DOH: Virginia Department of Health. COVID-19 in Virginia, updated daily. Link: http://www.vdh.virginia.gov/coronavirus/

Summary: Dental Procedures

Br Dent J: Coulthard P. Dentistry and coronavirus (COVID-19) - moral decision-making. Br Dent J. 2020 Apr;228(7):503-505. doi: 10.1038/s41415-020-1482-1. PMID: 32277203. Link: https://www.nature.com/articles/s41415-020-1482-1

Br Dent J: Smales FC, Samaranyake LP. Maintaining dental education and specialist dental care during an outbreak of a new coronavirus infection. Part 1: a deadly viral epidemic begins. Br Dent J. 2003 Nov 22;195(10):557-61. doi: 10.1038/sj.bdj.4810723. PMID: 14631425; PMCID: PMC7091738. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7091738/

Br Dent J: Smales FC, Samaranyake LP. Maintaining dental education and specialist dental care during an outbreak of a new coronavirus infection. Part 2: Control of the disease, then elimination. Br Dent J. 2003 Dec 20;195(12):679-81. doi: 10.1038/sj.bdj.4810819. PMID: 14718953; PMCID: PMC7091600. Link:

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7091600/

Clin Oral Investig: Yang Y, Zhou Y, Liu X, Tan J. Health services provision of 48 public tertiary dental hospitals during the COVID-19 epidemic in China. Clin Oral Investig. 2020 May;24(5):1861-1864. doi: 10.1007/s00784-020-03267-8. Epub 2020 Apr 3. PMID: 32246280; PMCID: PMC7118209. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7118209/

Dent J: Barabari P, Moharamzadeh K. Novel Coronavirus (COVID-19) and Dentistry-A Comprehensive Review of Literature. Dent J (Basel). 2020 May 21;8(2):E53. doi: 10.3390/dj8020053. PMID: 32455612. Link: https://www.mdpi.com/2304-6767/8/2/53

Int J Environ Res Public Health: Ahmed MA, Jouhar R, Ahmed N, Adnan S, Aftab M, Zafar MS, Khurshid Z. Fear and Practice Modifications among Dentists to Combat Novel Coronavirus Disease (COVID-19) Outbreak. Int J Environ Res Public Health. 2020 Apr 19;17(8):2821. doi: 10.3390/ijerph17082821. PMID: 32325888; PMCID: PMC7216192. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7216192/

Int J Environ Res Public Health: Giudice A, Barone S, Muraca D, Averta F, Diodati F, Antonelli A, Fortunato L. Can Teledentistry Improve the Monitoring of Patients during the Covid-19 Dissemination? A Descriptive Pilot Study. Int J Environ Res Public Health. 2020 May 13;17(10):E3399. doi: 10.3390/ijerph17103399. PMID: 32414126. Link: https://www.mdpi.com/1660-4601/17/10/3399

Int J Environ Res Public Health: Lo Giudice R. The Severe Acute Respiratory Syndrome Coronavirus-2 (SARS CoV-2) in Dentistry. Management of Biological Risk in Dental Practice. Int J Environ Res Public Health. 2020 Apr 28;17(9):E3067. doi: 10.3390/ijerph17093067. PMID: 32354081. Link: https://www.mdpi.com/1660-4601/17/9/3067

Int J Oral Sci: Peng X, Xu X, Li Y, Cheng L, Zhou X, Ren B. Transmission routes of 2019-nCoV and controls in dental practice. Int J Oral Sci. 2020 Mar 3;12(1):9. doi: 10.1038/s41368-020-0075-9.

PMID: 32127517; PMCID: PMC7054527. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7054527/

J Am Dent Assoc: Ethics Subcommittee of the Council on Ethics, Bylaws and Judicial Affairs. Ethical practice during the COVID-19 pandemic. J Am Dent Assoc. 2020 May;151(5):377-378. doi: 10.1016/j.adaj.2020.03.038. Epub 2020 Apr 8. PMID: 32276721; PMCID: PMC7141474. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7141474/

J Am Dent Assoc: Samaranayake LP, Peiris M. Severe acute respiratory syndrome and dentistry: a retrospective view. J Am Dent Assoc. 2004 Sep;135(9):1292-302. doi: 10.14219/jada.archive.2004.0405. PMID: 15493394; PMCID: PMC7093872. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7093872/

J Dent Res: Izzetti R, Nisi M, Gabriele M, Graziani F. COVID-19 Transmission in Dental Practice: Brief Review of Preventive Measures in Italy. J Dent Res. 2020 Apr 17:22034520920580. doi: 10.1177/0022034520920580. Epub ahead of print. PMID: 32302257. Link: https://journals.sagepub.com/doi/full/10.1177/0022034520920580

J Endod: Ather A, Patel B, Ruparel NB, Diogenes A, Hargreaves KM. Coronavirus Disease 19 (COVID-19): Implications for Clinical Dental Care. J Endod. 2020 May;46(5):584-595. doi: 10.1016/j.joen.2020.03.008. Epub 2020 Apr 6. PMID: 32273156. Link: https://www.jendodon.com/article/S0099-2399(20)30159-X/pdf

J Zhejiang Univ Sci B: Ge ZY, Yang LM, Xia JJ, Fu XH, Zhang YZ. Possible aerosol transmission of COVID-19 and special precautions in dentistry. J Zhejiang Univ Sci B. 2020 May;21(5):361-368. doi: 10.1631/jzus.B2010010. Epub 2020 Mar 16. PMID: 32425001; PMCID: PMC7089481. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7089481/pdf/11585 2020 Article 417.pdf

Oral Dis: Jamal M, Shah M, Almarzooqi SH, Aber H, Khawaja S, El Abed R, Alkhatib Z, Samaranayake LP. Overview of transnational recommendations for COVID-19 transmission control in dental care settings. Oral Dis. 2020 May 19. doi: 10.1111/odi.13431. Epub ahead of print. PMID: 32428372. Link: https://onlinelibrary.wiley.com/doi/abs/10.1111/odi.13431

Oral Dis: Volgenant CMC, Persoon IF, de Ruijter RAG, de Soet JJH. Infection control in dental health care during and after the SARS-CoV-2 outbreak. Oral Dis. 2020 May 11. doi: 10.1111/odi.13408. Epub ahead of print. PMID: 32391651. Link: https://onlinelibrary.wiley.com/doi/full/10.1111/odi.13408

Summaries from Other Sources

CEBM: Centre for Evidence-Based Medicine, University of Oxford. Burton C, Coles B, Adisesh A, Smith S, Toomey E, Chan XH, Ross L, Greenhalgh T. What is the performance and impact of disposable and reusable respirators for healthcare workers in the context of COVID-19? (22 May 2020) Link: https://www.cebm.net/covid-19/what-is-the-performance-and-impact-of-disposable-and-reusable-respirators-for-healthcare-workers-in-the-context-of-covid-19/

ECRI: ECRI Clinical Evidence Assessment. Considerations for Safe Labor, Delivery, and Neonatal Care during the COVID-19 Pandemic (18 May 2020). Link: https://assets.ecri.org/PDF/COVID-19-Resource-Center/COVID-19-Clinical-Care/COVID-ECRI-HTA-Considerations-For-Safe-Labor-Delivery-Neonatal-Care.pdf

Special Topic: Remdesivir

Drug Saf: Davies M, Osborne V, Lane S, Roy D, Dhanda S, Evans A, Shakir S. Remdesivir in Treatment of COVID-19: A Systematic Benefit-Risk Assessment. Drug Saf. 2020 May 28. doi: 10.1007/s40264-020-00952-1. Epub ahead of print. PMID: 32468196. Link: https://link.springer.com/article/10.1007/s40264-020-00952-1

Infection: Durante-Mangoni E, Andini R, Bertolino L, Mele F, Florio LL, Murino P, Corcione A, Zampino R. Early experience with remdesivir in SARS-CoV-2 pneumonia. Infection. 2020 May 16:1–4. doi: 10.1007/s15010-020-01448-x. Epub ahead of print. PMID: 32418190; PMCID: PMC7229436. Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7229436/

Lancet: Wang Y, Zhang D, Du G, Du R, Zhao J, Jin Y, Fu S, Gao L, Cheng Z, Lu Q, Hu Y, Luo G, Wang K, Lu Y, Li H, Wang S, Ruan S, Yang C, Mei C, Wang Y, Ding D, Wu F, Tang X, Ye X, Ye Y, Liu B, Yang J, Yin W, Wang A, Fan G, Zhou F, Liu Z, Gu X, Xu J, Shang L, Zhang Y, Cao L, Guo T, Wan Y, Qin H, Jiang Y, Jaki T, Hayden FG, Horby PW, Cao B, Wang C. Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial. Lancet. 2020 May 16;395(10236):1569-1578. doi: 10.1016/S0140-6736(20)31022-9. Epub 2020 Apr 29. PMID: 32423584; PMCID: PMC7190303. Link:

https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)31022-9.pdf

NEJM: Beigel JH, Tomashek KM, Dodd LE, Mehta AK, Zingman BS, Kalil AC, Hohmann E, Chu HY, Luetkemeyer A, Kline S, Lopez de Castilla D, Finberg RW, Dierberg K, Tapson V, Hsieh L, Patterson TF, Paredes R, Sweeney DA, Short WR, Touloumi G, Lye DC, Ohmagari N, Oh MD, Ruiz-Palacios GM, Benfield T, Fätkenheuer G, Kortepeter MG, Atmar RL, Creech CB, Lundgren J, Babiker AG, Pett S, Neaton JD, Burgess TH, Bonnett T, Green M, Makowski M, Osinusi A, Nayak S, Lane HC; ACTT-1 Study Group Members. Remdesivir for the Treatment of Covid-19 - Preliminary Report. N Engl J Med. 2020 May 22. doi: 10.1056/NEJMoa2007764. Epub ahead of print. PMID: 32445440. Link: https://www.nejm.org/doi/full/10.1056/NEJMoa2007764

NEJM: Goldman JD, Lye DCB, Hui DS, Marks KM, Bruno R, Montejano R, Spinner CD, Galli M, Ahn MY, Nahass RG, Chen YS, SenGupta D, Hyland RH, Osinusi AO, Cao H, Blair C, Wei X, Gaggar A, Brainard DM, Towner WJ, Muñoz J, Mullane KM, Marty FM, Tashima KT, Diaz G, Subramanian A; GS-US-540-5773 Investigators. Remdesivir for 5 or 10 Days in Patients with Severe Covid-19. N Engl J Med. 2020 May 27. doi: 10.1056/NEJMoa2015301. Epub ahead of print. PMID: 32459919. Link: https://www.nejm.org/doi/full/10.1056/NEJMoa2015301

NEJM: Grein J, Ohmagari N, Shin D, Diaz G, Asperges E, Castagna A, Feldt T, Green G, Green ML, Lescure FX, Nicastri E, Oda R, Yo K, Quiros-Roldan E, Studemeister A, Redinski J, Ahmed S,

Bernett J, Chelliah D, Chen D, Chihara S, Cohen SH, Cunningham J, D'Arminio Monforte A, Ismail S, Kato H, Lapadula G, L'Her E, Maeno T, Majumder S, Massari M, Mora-Rillo M, Mutoh Y, Nguyen D, Verweij E, Zoufaly A, Osinusi AO, DeZure A, Zhao Y, Zhong L, Chokkalingam A, Elboudwarej E, Telep L, Timbs L, Henne I, Sellers S, Cao H, Tan SK, Winterbourne L, Desai P, Mera R, Gaggar A, Myers RP, Brainard DM, Childs R, Flanigan T. Compassionate Use of Remdesivir for Patients with Severe Covid-19. N Engl J Med. 2020 Apr 10:NEJMoa2007016. doi: 10.1056/NEJMoa2007016. Epub ahead of print. PMID: 32275812; PMCID: PMC7169476. Link: https://www.nejm.org/doi/full/10.1056/NEJMoa2007016

Pharmacotherapy: Jorgensen SC, Kebriaei R, Dresser LD. Remdesivir: Review of pharmacology, pre-clinical data and emerging clinical experience for COVID-19. Pharmacotherapy. 2020 May 23. doi: 10.1002/phar.2429. Epub ahead of print. PMID: 32446287. Link: https://accpjournals.onlinelibrary.wiley.com/doi/abs/10.1002/phar.2429

Selected Primary Literature

Am J Emerg Med: Waltuch T, Gill P, Zinns LE, et al. Features of COVID-19 post-infectious cytokine release syndrome in children presenting to the emergency department. Published: May 23, 2020 DOI: https://doi.org/10.1016/j.ajem.2020.05.058 Link: https://www.ajemjournal.com/article/S0735-6757(20)30403-4/fulltext

bioRxiv: Robbiani DF, Gaebler C, Muecksch F, et al. Convergent Antibody Responses to SARS-CoV-2 Infection in Convalescent Individuals (22 May 2020). bioRxiv 2020.05.13.092619; doi: https://doi.org/10.1101/2020.05.13.092619 Link: https://www.biorxiv.org/content/10.1101/2020.05.13.092619v2

BMJ: Dagens A, Sigfrid L, Cai E, Lipworth S, Cheung V, Harris E, Bannister P, Rigby I, Horby P. Scope, quality, and inclusivity of clinical guidelines produced early in the covid-19 pandemic: rapid review. BMJ. 2020 May 26;369:m1936. doi: 10.1136/bmj.m1936. PMID: 32457027. Link: https://www.bmj.com/content/369/bmj.m1936

Emerg Infect Dis: Zhang W, Cheng W, Luo L, Ma Y, Xu C, Qin P, Zhang Z. Secondary Transmission of Coronavirus Disease from Presymptomatic Persons, China. Emerg Infect Dis. 2020 May 26;26(8). doi: 10.3201/eid2608.201142. Epub ahead of print. PMID: 32453686. Link: https://wwwnc.cdc.gov/eid/article/26/8/20-1142 article

Environ Int: Morawska L, Tang JW, Bahnfleth W, et al. How can airborne transmission of COVID-19 indoors be minimised? Received 22 April 2020, Revised 21 May 2020, Accepted 21 May 2020, Available online 27 May 2020. DOI: https://doi.org/10.1016/j.envint.2020.105832 Link: https://www.sciencedirect.com/science/article/pii/S0160412020317876

Infect Control Hosp Epidemiol: Goldfarb IT, Diouf K, Barth WH, Robinson JN, Katz D, Gregory KE, Ciaranello A, Yawetz S, Shenoy ES, Klompas M. Universal SARS-CoV-2 testing on admission to Labor and Delivery: Low prevalence among asymptomatic obstetric patients. Infect Control Hosp Epidemiol. 2020 May 27:1-6. doi: 10.1017/ice.2020.255. Epub ahead of print. PMID:

32456729. Link: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/81002844FD1915D0A495B32F7B53ACB2/S0899823X2000255Xa.pdf/universal sarscov2 testing on admission to labor and delivery low prevalence among asymptomatic obstetric patients.pdf

JAMA: Rossi R, Socci V, Pacitti F, Di Lorenzo G, Di Marco A, Siracusano A, Rossi A. Mental Health Outcomes Among Frontline and Second-Line Health Care Workers During the Coronavirus Disease 2019 (COVID-19) Pandemic in Italy. JAMA Netw Open. 2020 May 1;3(5):e2010185. doi: 10.1001/jamanetworkopen.2020.10185. PMID: 32463467. Link: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2766378

JAMA: Sen S, Karaca-Mandic P, Georgiou A. Association of Stay-at-Home Orders With COVID-19 Hospitalizations in 4 States. JAMA. 2020 May 27. doi: 10.1001/jama.2020.9176. Epub ahead of print. PMID: 32459287. Link: https://jamanetwork.com/journals/jama/fullarticle/2766673

Lancet: Kuderer NM, Choueiri TK, Shah DP, et al. Clinical impact of COVID-19 on patients with cancer (CCC19): a cohort study. Published: May 28, 2020 DOI: https://doi.org/10.1016/S0140-6736(20)31187-9 Link: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31187-9/fulltext

Lancet: Mehra MR, Desai SS, Ruschitzka F, Patel AN. Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis. Lancet. 2020 May 22:S0140-6736(20)31180-6. doi: 10.1016/S0140-6736(20)31180-6. Epub ahead of print. PMID: 32450107; PMCID: PMC7255293. Link:

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31180-6/fulltext

Lancet: Zhu FC, Li YH, Guan XH, Hou LH, Wang WJ, Li JX, Wu SP, Wang BS, Wang Z, Wang L, Jia SY, Jiang HD, Wang L, Jiang T, Hu Y, Gou JB, Xu SB, Xu JJ, Wang XW, Wang W, Chen W. Safety, tolerability, and immunogenicity of a recombinant adenovirus type-5 vectored COVID-19 vaccine: a dose-escalation, open-label, non-randomised, first-in-human trial. Lancet. 2020 May 22:S0140-6736(20)31208-3. doi: 10.1016/S0140-6736(20)31208-3. Epub ahead of print. PMID: 32450106; PMCID: PMC7255193. Link:

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31208-3/fulltext

medRxiv: Viner RM, Mytton OT, Bonell C, et al. Susceptibility to and transmission of COVID-19 amongst children and adolescents compared with adults: a systematic review and meta-analysis medRxiv 2020.05.20.20108126; doi: https://doi.org/10.1101/2020.05.20.20108126 Link: https://www.medrxiv.org/content/10.1101/2020.05.20.20108126v1

NEJM: Price-Haywood EG, Burton J, Fort D, Seoane L. Hospitalization and Mortality among Black Patients and White Patients with Covid-19. N Engl J Med. 2020 May 27. doi: 10.1056/NEJMsa2011686. Epub ahead of print. PMID: 32459916. Link: https://www.nejm.org/doi/full/10.1056/NEJMsa2011686

Science: Prather KA, Wang CC, Schooley RT. Reducing transmission of SARS-CoV-2. Science. 2020 May 27:eabc6197. doi: 10.1126/science.abc6197. Epub ahead of print. PMID: 32461212. Link: https://science.sciencemag.org/content/early/2020/05/27/science.abc6197

Link. https://science.sciencemag.org/content/earry/2020/05/27/science.abco15/

In Brief

Atlantic: The Atlantic. Kathy Gilsinan. How China Is Planning to Win Back the World (28 May 2020). Link: https://www.theatlantic.com/politics/archive/2020/05/china-disinformation-propaganda-united-states-xi-jinping/612085/

Atlantic: The Atlantic. Julia Marcus. Americans Aren't Getting the Advice They Need (28 May 2020). Link: https://www.theatlantic.com/ideas/archive/2020/05/no-one-telling-americans-how-reopen-their-lives/612172/

AusNews: Australian Broadcasting News. Allyson Horn. Woman diagnosed with coronavirus 80 days ago still showing symptoms (27 May 2020). Link: https://www.abc.net.au/news/2020-05-27/coronavirus-queensland-abnormal-incubation/12268794

BBC: BBC News. Coronavirus: China accuses US of spreading 'conspiracies' (24 May 2020). Link: https://www.bbc.com/news/world-asia-china-52790634

BBC: BBC News. Marianna Spring. Coronavirus: The human cost of virus misinformation (27 May 2020). Link: https://www.bbc.com/news/stories-52731624

BuzzFeed: BuzzFeed News Outbreak Today Newsletter (27 May 2020). Link: https://link.buzzfeed.com/view/5ebc0e8c4b2ef41d9367843bc66vz.3ni/19242705

Conversation: The Conversation. Jenny Meredith. How coronavirus contact tracing works in a state Dr. Fauci praised as a model to follow (28 May 2020). Link:

https://theconversation.com/how-coronavirus-contact-tracing-works-in-a-state-dr-fauci-praised-as-a-model-to-follow-138757

Defense One: Defense One. Patrick Tucker. How the Pandemic Is Helping The Military Prep For World War III (26 May 2020). Link: https://www.defenseone.com/technology/2020/05/how-pandemic-helping-military-prep-world-war-iii/165656/

KHN: Kaiser Health News. Elizabeth Lawrence. Nearly Half Of Americans Delayed Medical Care Due To Pandemic (27 May 2020). Link: https://khn.org/news/nearly-half-of-americans-delayed-medical-care-due-to-pandemic/

Nature: Nature. Philip Ball and Amy Maxmen. The epic battle against coronavirus misinformation and conspiracy theories (27 May 2020). Link: https://www.nature.com/articles/d41586-020-01452-z

Nature: Nature. Editorial. Coronavirus misinformation needs researchers to respond (27 May 2020). Link: https://www.nature.com/articles/d41586-020-01550-y

Nature: Nature. Nicola Jones. How coronavirus lockdowns stopped flu in its tracks (21 May 2020). Link: https://www.nature.com/articles/d41586-020-01538-8

NPR: National Public Radio. Brakkton Booker. Poll Shows Only A Quarter Of African Americans Plan To Get Coronavirus Vaccine (27 May 2020). Link:

https://www.npr.org/sections/coronavirus-live-updates/2020/05/27/863401430/poll-shows-only-a-quarter-of-african-americans-plan-to-get-coronavirus-vaccine

NPR: National Public Radio. Tom Bowman. As America Socially Distances, The Army 'Tactically Disperses' (29 May 2020). Link: https://www.npr.org/2020/05/29/862978934/as-america-socially-distances-the-army-tactically-disperses

NYT: New York Times. An Incalculable Loss (updated 27 May 2020). Link: https://www.nytimes.com/interactive/2020/05/24/us/us-coronavirus-deaths-100000.html

NYT: New York Times: Jason DeParle. Hunger Program's Slow Start Leaves Millions of Children Waiting (26 May 2020). Link: https://www.nytimes.com/2020/05/26/us/politics/child-hunger-coronavirus.html

NYT: New York Times. Nadja Popovick and Margot Sanger-Katz. The World Is Still Far From Herd Immunity for Coronavirus (28 May 2020). Link:

https://www.nytimes.com/interactive/2020/05/28/upshot/coronavirus-herd-immunity.html

STAT: STATnews. Helen Branswell. New research rewrites history of when Covid-19 took off in the U.S. — and points to missed chances to stop it (26 May 2020). Link:

https://www.statnews.com/2020/05/26/new-research-rewrites-history-of-when-covid-19-arrived-in-u-s-and-points-to-missed-chances-to-stop-it/

STAT: STATnews. Jeffrey Geller. In the face of Covid-19, the U.S. needs to change how it deals with mental illness (29 May 2020). Link: https://www.statnews.com/2020/05/29/covid-19-change-approach-mental-illness/

STAT: STATnews. Andrew Joseph. Contact tracing could help avoid another lockdown. Can it work in the U.S.? (29 May 2020). Link: https://www.statnews.com/2020/05/29/contact-tracing-can-it-help-avoid-more-lockdowns/

WashPo: Washington Post. Charlotte Druckman. How solo cooks are managing in the pandemic — without resorting to cereal for dinner (28 May 2020). Link:

https://www.washingtonpost.com/news/voraciously/wp/2020/05/28/how-solo-cooks-are-managing-in-the-pandemic-without-resorting-to-cereal-for-dinner/

WashPo: Washington Post. William Wan and Carolyn Y. Johnson. Coronavirus may never go away, even with a vaccine (27 May 2020). Link:

https://www.washingtonpost.com/health/2020/05/27/coronavirus-endemic